Unique Pointer Applications Solutions

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Polymorphic Container

- Write a program that uses unique_ptr to make a container of polymorphic objects

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unique_ptr and pointer management

- Why is unique_ptr useful for managing pointers which were not returned by new()?
  - Uses RAII idiom with ownership semantics
  - Adopts pointer in constructor
  - Performs clean-up in destructor
  - Can be moved but not copied, correctly handles transfer of ownership of pointer

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Custom deleters

- What is a deleter and why can it be problematic?
  - A deleter is a function which is called by the unique_ptr destructor to clean up the pointer
  - By default, delete() is called
  - If the pointer was not returned by calling new(), there will be a memory error
- Write a program which demonstrates this problem

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Custom deleter

- Amend your program so that it is not affected by this problem

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